UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/597,334	02/21/2007	Rolf Engstrand	P17947-US1	9406

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ERICSSON INC.
6300 LEGACY DRIVE
M/S EVR 1-C-11
PLANO, TX 75024

EXAMINER
ZHAO, WEI

ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	10/597,334	ENGSTRAND, ROLF
	Examiner	Art Unit	
	WEI ZHAO	2475	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>08 September 2009</u>.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>15-22</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>15-22</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____.

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

Office Action Summary

Part of Paper No./Mail Date 20091214

DETAILED ACTION

Response to Amendment

1.   This communication is considered fully responsive to the Amendment filed on

September 8, 2009. The following is a new ground rejection.

Claim Objections

2.   Claims 15-22 are objected to under 37 CFR 1.75(c) because of the following

informalities:

Regarding claim 15, it is suggested to change the term "the available bandwidth"

in line 6 to --- an available bandwidth ---. The same abjection applies to claim 19.

Claims 16-18 are objected to since they all depend from claim 15.

Claims 20-22 are objected to since these three claims all depend from claim 19.

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

4.   The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

    1.   Determining the scope and contents of the prior art.
    2.   Ascertaining the differences between the prior art and the claims at issue.
    3.   Resolving the level of ordinary skill in the pertinent art.
    4.   Considering objective evidence present in the application indicating
        obviousness or nonobviousness.

5.   Claims 15 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Momona (US 6,434,117) in view of Koch et al. (US 2006/0013247).

For claim 15, Momona teaches the method for access control in a multicast

system in which data is sent from a source over a common link to an arbiter node

associated with a plurality of users, wherein the arbiter node distributes the data to at

least two users (column [2] lines 17-23), the method comprising the steps of: assigning

a weight to each user associated with the arbiter node, wherein the weights indicate a

percentage of the available bandwidth on the common link each user is provisionally

allowed to use (column [9] lines 5-13); receiving at the arbiter node, a request to join a

new multicast session from a first user (column [9] lines 5-13); determining by the

arbiter node, an allowed bandwidth for the first user, wherein the allowed bandwidth for

the first user is calculated as the available bandwidth on the common link multiplied by

the weight assigned to the first user (column [10] lines 3-7); comparing by the arbiter

node, the actual bandwidth for the first user with the allowed bandwidth for the first user

(column [10] lines 3-7).

Momona teaches all the subject matter with the exception of implementing the

method, determining by the arbiter node, an actual bandwidth that the first user would

utilize if the request to join the new multicast session is granted, wherein the actual

bandwidth for the first user is calculated as the sum of the first user's bandwidth part of

each currently ongoing session in which the first user is a participant plus the first user's

bandwidth part of the new multicast session, wherein the first user's bandwidth part of

any given session is calculated as the bandwidth required for the given session divided

by the total number of users participating in the given session. Koch et al. from the

same or similar field of endeavor teach implementing fairness of the method,

determining by the arbiter node, an actual bandwidth that the first user would utilize if

the request to join the new multicast session is granted (paragraph [0060] lines 1-14),

wherein the actual bandwidth for the first user is calculated as the sum of the first user's

bandwidth part of each currently ongoing session in which the first user is a participant

plus the first user's bandwidth part of the new multicast session, wherein the first user's

bandwidth part of any given session is calculated as the bandwidth required for the

given session divided by the total number of users participating in the given session

(paragraph [0060] lines 1-14); granting the request when the actual bandwidth for the

first user is less than or equal to the allowed bandwidth for the first user (paragraph

[0060] lines 1-9); and denying the request when the actual bandwidth for the first user is

greater than the allowed bandwidth for the first user (paragraph [0060] lines 1-9). Thus,

it would have been obvious to one of ordinary skill in the art to implement the method of

Koch et al. in the system of Momona. The method of Momona can be implemented on

any type of the method, determining by the arbiter node, an actual bandwidth that the first user would utilize if the request to join the new multicast session is granted, wherein the actual bandwidth for the first user is calculated as the sum of the first user's bandwidth part of each currently ongoing session in which the first user is a participant plus the first user's bandwidth part of the new multicast session, wherein the first user's bandwidth part of any given session is calculated as the bandwidth required for the given session divided by the total number of users participating in the given session, which is taught by Koch et al. The motivation for using the method of Momona on implementing the method, determining by the arbiter node, an actual bandwidth that the first user would utilize if the request to join the new multicast session is granted, wherein the actual bandwidth for the first user is calculated as the sum of the first user's bandwidth part of each currently ongoing session in which the first user is a participant plus the first user's bandwidth part of the new multicast session, wherein the first user's bandwidth part of any given session is calculated as the bandwidth required for the given session divided by the total number of users participating in the given session, is to enhance the multicast system having the quality-of-service based on the available bandwidth capacity.

For claim 19, it is similar to claim 15. Claim 19 is rejected for the same reasons as applied to claim 15.

6.   Claims 16-18 and 20-22 are rejected under 35 U.S.C. 103(a) as being
unpatentable over Momona (US 6,434,117) in view of Koch et al. (US 2006/0013247)
as applied to claim 15 or 19, and further in view of Richardson et al. (US
2006/0038877).

For claim 16, Koch et al. further teach the method, further comprising the steps
of: determining by the arbiter node, a new allowed bandwidth for the first user by
multiplying the available bandwidth on the common link by the increased weight
assigned to the first user (paragraph [0060] lines 1-14); and granting or denying the
request based on the new allowed bandwidth for the first user (paragraph [0060] lines 1-
9).

Momona and Koch et al. teach all the subject matter with the exception of
implementing the predefined period of time. Richardson et al. from the same or similar
field of endeavor teach implementing fairness of the method, determining that the first
user previously used the new multicast session within a previous predefined period of
time (paragraph [0204] lines 1-3); temporarily increasing the weight assigned to the first
user (paragraph [0204] lines 3-10). Thus, it would have been obvious to one of ordinary
skill in the art to implement the method of Richardson et al. in the system of Momona
and Koch et al. The method of Momona and Koch et al. can be implemented on any
type of the method implementing the predefined period of time, which is taught by
Richardson et al. The motivation for using the method of Momona and Koch et al. on
implementing the predefined period of time is to enhance the multicast system having
the quality-of-service for the session in the specified amount of time.

For claim 17, Momona and Koch et al. teach all the subject matter with the exception of comprising, prior to increasing the weight assigned to the first user, the step of determining that the first user used the new multicast session for a period of time that exceeds a predetermined guarantee time. Richardson et al. from the same or similar field of endeavor teach implementing fairness of the method, comprising, prior to increasing the weight assigned to the first user, the step of determining that the first user used the new multicast session for a period of time that exceeds a predetermined guarantee time (paragraph [0204] lines 1-10). Thus, it would have been obvious to one of ordinary skill in the art to implement the method of Richardson et al. in the system of Momona and Koch et al. The method of Momona and Koch et al. can be implemented on any type of the method comprising, prior to increasing the weight assigned to the first user, the step of determining that the first user used the new multicast session for a period of time that exceeds a predetermined guarantee time, which is taught by Richardson et al. The motivation for using the method of Momona and Koch et al. on comprising, prior to increasing the weight assigned to the first user, the step of determining that the first user used the new multicast session for a period of time that exceeds a predetermined guarantee time is to enhance the multicast system having the quality-of-service for the session in the specified amount of time.

For claim 18, Momona and Koch et al. teach all the subject matter with the exception of detecting that the first user has left the requested multicast session; and in response, reducing the weight assigned to the first user to the weight's original value. Richardson et al. from the same or similar field of endeavor teach implementing fairness

of the method, detecting that the first user has left the requested multicast session (paragraph [0204] lines 1-3); and in response, reducing the weight assigned to the first user to the weight's original value (paragraph [0204] lines 3-10). Thus, it would have been obvious to one of ordinary skill in the art to implement the method of Richardson et al. in the system of Momona and Koch et al. The method of Momona and Koch et al. can be implemented on any type of the method detecting that the first user has left the requested multicast session; and in response, reducing the weight assigned to the first user to the weight's original value, which is taught by Richardson et al. The motivation for using the method of Momona and Koch et al. on detecting that the first user has left the requested multicast session; and in response, reducing the weight assigned to the first user to the weight's original value is to enhance the multicast system having the quality-of-service for the session in the specified amount of time.

For claims 20-22, these three claims are similar to claims 16-18 individually. Claims 20-22 are rejected for the same reasons as applied to claims 16-18.

Response to Remarks/Arguments

7.   Claims Objections: in the Response, Applicants canceled all of the original claims, rendering the previous objections moot.

8.   Claims Rejections: Applicants' arguments filed September 8, 2009 have been fully considered but they are not persuasive.

On page 6 of the Response with respects to claim 15, Applicants assert the prior

art doesn't teach "clearly recite the steps and means for determining whether to grant or

deny a request from a first user to join a new multicast session."

The prior art teaches to provide a communication network comprising a plurality

of IEEE-1394 nodes connected to a serial bus, each of the nodes functioning as a

source node or a destination node for signaling an isochronous channel setup request

containing session data and signaling an isochronous channel release request, and a

multicast manager connected to the serial bus (column [2] lines 17-23, Momona). At

step 1103, the source node 10A sends a session channel setup request to the multicast

manager 10D for requesting the bandwidth desired by the destination node 10C. This is

done by setting the control register 30 of manager 10D with the session data and the

bandwidth data received with the reservation message from the destination node. If the

request is granted, a reply packet is transmitted from the multicast manager to the

source node where the control register 40 is set with the assigned channel number

(column [9] lines 5-13, Momona). The session setup request from the source node 10A

is detected at step 1310. Since the resource reservation protocol is a receiver-oriented

protocol, this request contains the bandwidth the destination node 10C is ready to

receive as well as the session data. In response to this request, the multicast manager

10D proceeds to step 1311 to compare the bandwidth requested by the destination

node with a value currently set in the bandwidth field of the corresponding entry of

allocation table 20 (column [10] lines 1-7, Momona). The prior art further teaches in

operation, an individual ONT 38 may initially receive a unique packet stream from a

corresponding OLT module 35 via unique source 33. The unique packet stream may be
received at a constant rate by the individual ONT 38. The transmission rate may be a
default rate set by the individual ONT 38 or the OLT module 35 or may be **determined
based on the available bandwidth capacity of the ONT 38 at the time the
individual ONT 38 requested the stream (Examiner Note: this feature has the
same function of "determining whether to grant or deny a request from a first
user to join a new multicast session" as claimed in the current application)**. The
individual ONT 38 may then select a second packet stream to receive. The second
packet stream may be a common packet stream or a different unique packet stream. **As
an example, subscriber devices 39 connected to the individual ONT 38 may send
an IGMPv2 join request to join a multicast group** (paragraph [0060] lines 1-14, Koch
et al.).

Based on the fact, Examiner respectfully disagrees that the prior art cited does
not teach the independent claim 15 as mentioned by Applicants. Independent claim 19
sets forth similar elements as claim 15's, so the prior art teaches claim 19. Furthermore,
the cited passages teach dependent claims 16-18 and 20-22 as well.

Conclusion

9.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time
policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to WEI ZHAO whose telephone number is (571)270-5672.

The examiner can normally be reached on Monday-Thursday, 8:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Dang Ton can be reached on 571-272-3171. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

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For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Wei Zhao

Examiner

Art Unit 2475

/W. Z./

Examiner, Art Unit 2475

/DANG T TON/

Supervisory Patent Examiner, Art Unit 2475/D. T. T./

Supervisory Patent Examiner, Art Unit 2475